FlyBy Math™ Alignment
High School Core Learning Goals
Mathematics

Goal 1 Functions and Algebra
The student will demonstrate the ability to investigate, interpret, and communicate solutions to mathematical and real-world problems using patterns, functions, and algebra.

Expectation 1.1
The student will analyze a wide variety of patterns and functional relationships using the language of mathematics and appropriate technology.

Indicators	***FlyBy Math*™ Activities**
1.1.1. The student will recognize, describe, and/or extend patterns and functional relationships that are expressed numerically, algebraically, and/or geometrically.	--Represent distance, speed, and time relationship for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system. --Interpret the slope of a line in the context of a distance-rate-time problem.
1.1.2 The student will represent patterns and/or functional relationships in a table, as a graph, and/or by mathematical expression.	--Represent distance, speed, and time relationship for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.

Expectation 1.2
The student will model and interpret real-world situations using the language of mathematics and appropriate technology.

Indicators	***FlyBy Math*™ Activities**
1.2.1 The student will determine the equation for a line, solve linear equations, and/or describe the solutions using numbers, symbols, and/or graphs.	--Represent distance, speed, and time relationship for constant speed cases using linear equations and a Cartesian coordinate system. --Use tables, bar graphs, line graphs, equations, and a Cartesian coordinate system to draw conclusions. --Explain and justify solutions regarding the motion of two airplanes using the results of plotting points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system.
1.2.3 The student will solve and describe using numbers, symbols, and/or graphs if and where two straight lines intersect.	--Use the distance-rate-time formula to predict and analyze aircraft conflicts. --Explain and justify solutions regarding the motion of two airplanes using the results of plotting points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system.
1.2.5. The student will apply formulas and/or use matrices (arrays of numbers) to solve real-world problems.	--Use the distance-rate-time formula to predict and analyze aircraft conflicts.

Goal 2 Geometry, Measurement, And Reasoning The student will demonstrate the ability to solve mathematical and real-world problems using measurement and geometric models and will justify solutions and explain processes used.	
Expectation 2.3 The student will apply concepts of measurement using tools and technology when appropriate.	
Indicators	***FlyBy Math™* Activities**
2.3.1 The student will use algebraic and/or geometric properties to measure indirectly.	--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.